THE CLAIMS

1-9. (Cancelled)

10. (Withdrawn) A method for electromagnetic tracking, said method comprising:
selecting a tracker configuration for components in an electromagnetic tracker;
generating a processing scheme for the tracker configuration; and
applying the processing scheme to the components in the electromagnetic tracker.

11. (Withdrawn) The method of claim 10, wherein said generating step further comprises generating a processing scheme on demand.

12. (Withdrawn) The method of claim 10, wherein said generating step further comprises generating a processing scheme for the tracker configuration using software.

13. (Withdrawn) The method of claim 10, wherein said generating step further comprises generating a processing scheme for the tracker configuration using a configurable processor.

14. (Withdrawn) The method of claim 10, further comprising storing the processing scheme in memory.

15. (Withdrawn) The method of claim 10, further comprising determining at least one of a position and an orientation of at least one component in the electromagnetic tracker.

16. (Currently amended) A configurable electromagnetic tracking system, said system comprising:

at least one of a transmitter and a receiver for measuring a position in a coordinate system;

a single tracker electronics sub-system for determining position of said at least one of a transmitter and a receiver using information from said at least one of a transmitter and a receiver, wherein said single tracker electronics sub-system ~~operable~~ is used with a plurality of tracking system coil architectures.

17. (Previously presented) The system of claim 16, wherein said tracker electronics sub-system generates a processing scheme for a tracking system coil architecture.

18. (Previously presented) The system of claim 16, wherein said tracker electronics sub-system simultaneously supports the plurality of tracking system coil architectures.

19. (Previously presented) The system of claim 16, wherein said tracker electronics sub-system comprises modular, configurable tracker electronics.

20. (Previously presented) The system of claim 16, wherein said tracker electronics sub-system uses software to generate support for the plurality of tracking system coil architectures.

21. (Previously presented) The system of claim 16, wherein said tracker electronics sub-system is configured by software to accommodate the plurality of tracking system coil architectures.

22. (Previously presented) The system of claim 16, wherein said tracker electronics sub-system stores waveforms in memory for the plurality of tracking system coil architectures.

23. (Previously presented) The system of claim 16, wherein said tracker electronics sub-system generates waveforms on demand for at least one of the plurality of tracking system coil architectures.

24. (Previously presented) The system of claim 16, wherein said tracker electronics sub-system stores software in memory for the plurality of tracking system coil architectures.

25. (Previously presented) The system of claim 16, wherein said tracker electronics sub-system generates software code on demand for at least one of the plurality of tracking system coil architectures.

26. (Previously presented) The system of claim 16, wherein the at least one of a transmitter and a receiver includes both the transmitter and the receiver, and wherein the tracker electronics sub-system determines at least one of a position and an orientation of the receiver using information from the transmitter.

27. (Previously presented) The system of claim 16, wherein the at least one of a transmitter and a receiver includes both the transmitter and the receiver, and wherein the tracker electronics sub-system determines at least one of a position and an orientation of the transmitter using information from the receiver.

28. (Previously presented) The system of claim 16, wherein the plurality of tracking system coil architectures comprises:

a first tracking system coil architecture that uses three colocated orthogonal dipole transmitter coils and three collocated quasi-dipole receiver coils; and

a second tracking system coil architecture using non-dipole, non-colocated transmitter coils and three collocated quasi-dipole receiver coils.

29. (Currently amended) The system of claim [[16]] 28, wherein the plurality of tracking system coil architectures further comprises:

a third tracking system coil architecture that uses an array of ~~size~~ six or more transmitter coils and one or more quasi-dipole receiver coils; and

a fourth tracking system coil architecture that uses a single quasi-dipole transmitter coil and an array of six or more receiver coils.